8



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/658,659B TIME: 09:10:56

DATE: 11/07/2002

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\I658659B.raw

4 <110> APPLICANT: Stanton, Jr., Vincent P.

7 <120> TITLE OF INVENTION: GENE SEQUENCE VARIANCE IN GENES RELATED &

TO FOLATE METABOLISM HAVING UTILITY IN DETERMINING THE

TREATMENT OF DISEASE 9

11 <130> FILE REFERENCE: 11926-015001

13 <140> CURRENT APPLICATION NUMBER: 09/658,659B

14 <141> CURRENT FILING DATE: 2000-09-08

16 <150> PRIOR APPLICATION NUMBER: 09/596,033

17 <151> PRIOR FILING DATE: 2000-06-15

19 <150> PRIOR APPLICATION NUMBER: 09/357,743

20 <151> PRIOR FILING DATE: 1999-07-20

22 <150> PRIOR APPLICATION NUMBER: 09/357,024

23 <151> PRIOR FILING DATE: 1999-07-19

25 <150> PRIOR APPLICATION NUMBER: 60/093,484

26 <151> PRIOR FILING DATE: 1998-07-20

28 <160> NUMBER OF SEQ ID NOS: 16

30 <170> SOFTWARE: FastSEQ for Windows Version 4.0

Does Not Comply Corrected Diskette Needed

ERRORED SEQUENCES

32 <210> SEQ ID NO: 1

33 <211> LENGTH: 7224

34 <212> TYPE: DNA

35 <213> ORGANISM: Homo sapiens

37 <220> FEATURE:

38 <221> NAME/KEY: misc_feature

39 <222> LOCATION: 194, 32/09

40 <223> OTHER INFORMATION: n = c or g

42 <221> NAME/KEY: misc_feature

43 <222> LOCATION: 11,36, 13,34, 3150, 5,551, 5,934

44 <223> OTHER INFORMATION: n = a or g

W--> 46 <221> misc_feature,

47 <222> LOCATION: 284, 1252, 1699, 5\$73, 56\$9, 5678, 5874

48 <223> OTHER INFORMATION: n = c or t

W--> 50 <221> misc_feature

51 <222> LOCATION: 3207

52 < 223 > OTHER INFORMATION: n = g or t

W--> 54 <221> misc_feature

55 <222> LOCATION: 5444

56 < 223 > OTHER INFORMATION: n = c or a

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PATENT APPLICATION: US/09/658,659B

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Input Set : A:\11926-015001.txt

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						cccgcgctcc			420	
						aatgccattc			480	
						cgggagaagc			540	
						ctgaaaggca			600	
						aaggaatact			660	
							ctgactatgg		720	
	71	ccttgaacac	ttggcctacc	ggatgaacat	gtgctctgca	ggagtggcca	gaaaagctgc		780	
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	74	tgatgagctt	gttgaagcat	accaagagca	ggccaaagga	cttctggatg	geggggttga		960	
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		113	cccagtgaag	cccacgttta	ttgggaccca	ggtctttgaa	gactatgacc	tgcagaagct	3300
		114	ggtggactac	attgactgga	agcctttctt	tgatgtctgg	cagctccggg	gcaagtaccc	3360
		115	gaatcgaggc	tttcccaaga	tatttaacga	caaaacagta	ggtggagagg	ccaggaaggt	3420
		116	ctacgatgat	gcccacaata	tgctgaacac	actgattagt	caaaagaaac	teegggeeeg	3480
		117	gggtgtggtt	gggttctggc	cagcacagag	tatccaagac	gacattcacc	tgtacgcgga	3540
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		121	gctgagcaag	gcctatgagg	atgatggtga	cgactacage	agcatcatgg	tcaaggcgct	3780
		122	gggggaccgg	ctggcagagg	cctttgcaga	agagetecat	gaaagagttc	gccgagaact	3840
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							agaaacactg		4800
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	M >						atacactcat		5520
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	74.— - - > ₹						tttgttcatg		5640
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	vv >						gtgtttatat		5760
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,	5.7 *						ggttggggac		5880
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900

DATE: 11/07/2002 RAW SEQUENCE LISTING TIME: 09:10:56 PATENT APPLICATION: US/09/658,659B Input Set : A:\11926-015001.txt Output Set: N:\CRF4\11072002\1658659B.raw 158 ctqqtqacat qqcaaqtcaq tqqqqacaqq aaggaccact ccctaagtaa tcccagaaca 6000 6060 159 atggctattc atgtgggaaa aaaagaaatt ttactttctc tcaccttacc tggtgataag 6120 160 ttccaaatat gttaagggct ttaatacaaa aagcaaaaat tgtcagtgtt tggatgaaaa 161 aageettagg geaggaaaga atetettgag acataaagta gtaateataa aggacaagat 6180 162 qqttaaqtca attctqttaa aactcaaqqc ttatattaaq caaacacttq aaqtqaqaaq 6240 163 atgatocaca acttgagaag acatttataa: tacaaataac tgatgaagga ttcataatca 6300 164 caaatataga gaattootat ttaaaaaaaat agaaaaatag tgaagactac acaagaggaa 6360 165 atagggettt taaataaata gatgttetgt ageattggte agggaaatat gaattaggae 6420 166 cacaatgaga ttccatttta tatccataag atttgcaaag gttgggtctg acagtaccag 6480 167 ttgttagate tgtagggaet tgtacaacat tgtggatgtg taaacaggea ccactgettt 6540 168 aaaaaacaat tatcccttac agacttgaac.atttgcagac.cttatgatct.tgcttccaac. 6.6.0.0 169 toccacctyt atgtccagca aactettgca: tgtggccact: aggaggaatg: tgtaagaatg: 6660 6720 170 ttcatagtta catatttata atagttaata actggaaaaa gtgaaatgta tgtctgtcta 171 caggaaaata ggtgaataat tagatatatg tattcattct acgggatatt attcagtagt 6780 6840 172 ggaaatgagt gaactacage tatacctcac aataagaatg aatctcagaa aatattaagg 173 aaaaaagcaa gtttgaagag accacatggg gcqtactatt tttattgagc ccaaaaacaa. 6900 6960 174 gcaaaccaa agaatatgta gtctaagcat acgtatacaa taaaactatg ctattaaaaa. 7020 175 aaaaggtaac tgataaacca aaattgagca tagtaattac ccacagaagg aggaagtgga 176 agggacagga gcacataggt agatgccaag ttatgcagct gttctggttc ctcctggtag 7080 177 gcttacaagt gtttactata tgctattaat acattatact ttataactaa tagataacag 7140 7200 178 ttttttacat attaaatatg ttctacttaa atatattata aaaaataaag gcaaagtgga 7224<210> 2

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181 <212> TYPE: DNA

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-> 184 <220> FEATURE:

185 <221> NAME/KEY: misc_feature

186 <222> LOCATION: 3434, 4318, 5255, 5507, 5810, 61/28, 6626, 6686

187 <223> OTHER INFORMATION: n = c or t^{ℓ}

189 <221> NAME/KEY: misc_feature

190 <222> LOCATION: 47/99, 5455/

191 $\langle 223 \rangle$ OTHER INFORMATION: n = a or q

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197	tcacctatcc	tctgatcggc	aactatggca	tcccccaga	tgaaatggat	gagttcggtc	240
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W>					ggggcctctc				1260
					ccctgaagga				1320
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Output Set: N:\CRF4\11072002\1658659B.raw

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				gtcagcctgc				6360
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DATE: 11/07/2002

PATENT APPLICATION: US/09/658,659B

TIME: 09:10:56

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Output Set: N:\CRF4\11072002\1658659B.raw

307	cacacttaga	tattcctgga	catccagatt	gctcacatgt	gctgaccaca	cttcaggctc	6840
308	tggactggag	ctctctggca	tgggggtggg	gcctcagatg	ctggggccca	gtctgcccca	6900
309	tcttcattcc	.tgcaccttaa	acctgtacag	tcatttttct	actgacttaa	taaacagccg	6960
310	agctgtccct	tg					6972

E--> 311 <210> SEQ ID NO: 3

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/09/658,659B

DATE: 11/07/2002 TIME: 09:10:57

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\1658659B.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 179

Skipped Sequences (NEW RULES):

Sequence(s)_missing. If intentional, please use the following format for
each skipped sequence.
<210> sequence id number
<400> sequence id number

000

Seq#:2

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/658,659B

DATE: 11/07/2002 TIME: 09:10:57

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\1658659B.raw

```
L:46\ M:258\ W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
\text{L}:50~\text{M}:258~\text{W}: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:54 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:58 M:258 W: Mandatory Feature missing <220> Tag not found for SEQ ID#:1
L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:180
L:63 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:240
L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1080
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1200
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1320 L:87 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1680 L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:3120
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:3180
\tt L:149~M:341~W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5400
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5520
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5640
L:156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5820
L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:5880
L:179 M:254 E: No. of Bases conflict, LENGTH: Input: 2 Counted: 7226 SEQ:1
L:179 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:9
L:179 M:252 E: No. of Seq. differs, <211> LENGTH:Input:7224 Found:7226 SEQ.1
L:193 M:282 W: Numeric Field Identifier Missing, <210> is required...
L:193 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:193 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:1 differs:2
L:251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:3420
L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:4260
L:273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:4740
L:281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5220
L:284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5400 L:285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5460 L:290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:5760
L:296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:6120
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:6600
L:305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:6660
L:311 M:214 E: (33) Seq.# missing, SEQ ID NO:2
L:325 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
L:335 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:540 L:336 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:600
L:354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:1680
L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3420
L:387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3660
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:3720
L:391 M:341 W: (46) "n" on "Xaa" used; for SEQ LD#:3 after pos.:3900
L:407 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:411 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:415 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4 L:419 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:423 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/658,659B

DATE: 11/07/2002 9B TIME: 09:10:57

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\I658659B.raw

```
\rm L\!:\!426~M\!:\!341~W\!: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:120
L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:300
L:437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:780
L:441 M:341 W: (46) "n" or "Xaa" used for SEQ ID#:4 after pos.:1020
L:446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1320
L:457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1980
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:2100
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:2580
L:468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:2640
L:486~M:258~W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5
L:490 M:258 W: Mandatory Feature missing <220> Tag not found for SEQ ID#:5
L:498 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:420
L:499 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:480
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:540
L:569 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:6
L:573 M:258 W: Mandatory Feature missing <220> Tag not found for SEQ ID#:6
L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:1020
L:592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:1080
L:598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:1440
L:615 M:258 W: Mandatory Feature missing <220> Tag not found for SEQ ID#:7
L:619 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:623 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:240
L:629 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:300
L:631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:420
L:632 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos ::480
L:661 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:667 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:671 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:675 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:679 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:683 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
L:1009 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:1013 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:1017 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:1021 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
L:1079 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10
L:1083 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:10
L:1128 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1132 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1136 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1140 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1144 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1148 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1152 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11
L:1266 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12 L:1318 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:13 L:1378 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:1382 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
```

VERIFICATION SUMMARY

DATE: 11/07/2002

PATENT APPLICATION: US/09/658,659B

TIME: 09:10:57

Input Set : A:\11926-015001.txt

Output Set: N:\CRF4\11072002\1658659B.raw

L:1386 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:14
L:1445 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1449 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1453 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1457 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1461 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1514 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:15
L:1518 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16
L:1522 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16
L:1526 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:16